The Transmission Ranking Cost Report

California Energy Commission 2006-2007 Integrated Energy Policy Report Committee

Mid-Course Review of the Renewables Portfolio Standard Process

(2nd workshop)

August 22, 2006

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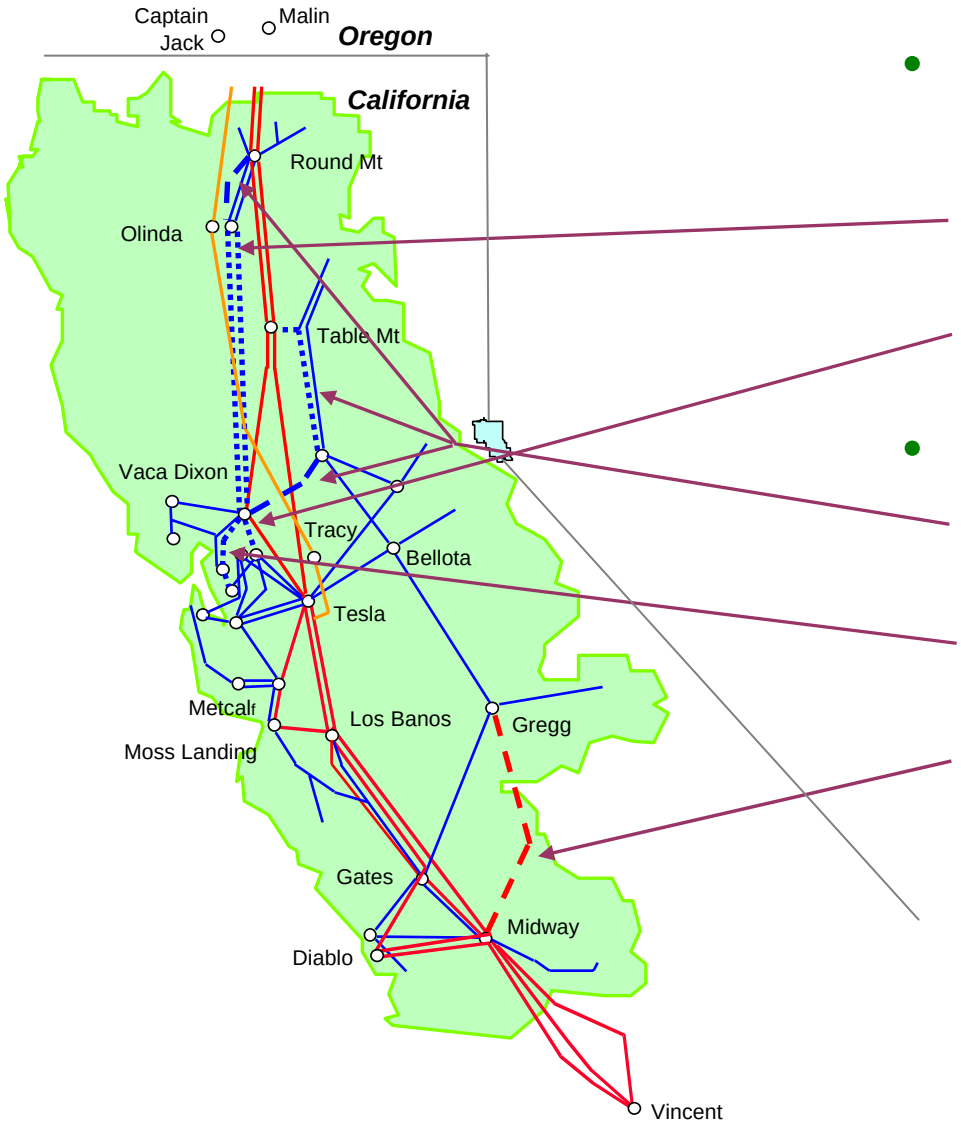
Potential PG&E Transmission Upgrades for Renewable Generation



- Projects Included in the 2005 Grid Expansion Plan
  - Cottonwood – Vaca Dixon 230 kV Capacity Increase
  - Vaca Dixon-Contra Costa 230 kV Reinforcement
- Projects Under Investigation
  - Table Mountain - Vaca-Dixon 230 kV Reinforcement
  - Vaca Dixon – Sobrante – Moraga 230 kV Reinforcement
  - Midway – Gregg 500 kV Line

Upgrade Existing Line

Construct New Line

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Transmission Cost Responsibility

Generator Cost Responsibility - Include in bid price

- Direct Assignment Facilities (Gen-tie)
  - If desired, PG&E will evaluate potential for sharing
- Wheeling Charges in non-PTO systems

Customers' Cost Responsibility

- All Network Upgrades, including
- Transmission Adders at Clusters (attributed to bids):
  - CAISO Interconnection Process (SIS/FS); or
  - Transmission Ranking Cost Report (TRCR)

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Background on the TRCR

- TRCR provides a means to ensure transmission costs are accounted for when considering bids.
- The TRCR methodology estimates the actual transmission costs by using the same FERC rules that must be followed in the CAISO interconnection process and using the most up-to-date system and queue information available.
- The TRCR provides RPS bidders valuable siting information at no cost prior to entering the CAISO interconnection process, where project-specific cost estimates are provided at the developers' expense.
- Provides pre-bid information for the bidders to structure their bid to maximize their chance of winning.

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Background on the TRCR

The TRCR does **NOT**:

- Prevent a utility from procuring any particular resource type or technology;
- Advantage non-renewable generators over renewable generators, as it only compares renewables to renewables;
- Determine or affect who pays for transmission necessary to interconnect new renewable resources;
- Replace the ISO Interconnection Process.

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Transmission Adder Use in Bid Evaluation

Use the lesser of :

1. Transmission Ranking Cost Report
2. Alternative Commercial Arrangements
   - Remarketing
   - Swaps
   - As-available transmission

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Application of Transmission Ranking Cost

Inputs to Transmission Ranking Cost Development

- ISO/WECC base cases w/ approved transmission additions
- ISO Interconnection Queue[1] w/ Transmission in GFSA/IA
- Information from Potential Bidders – results from IOU Solicitation for Information
- Public Information, (e.g. CEC report)
- Other readily available studies

IOU – files Transmission Ranking Cost Report → Stakeholder comments → CPUC approves Transmission Ranking Cost Report

Inputs to 2nd Ranking

- Renewable Bids 1st Ranking using factors other than Transmission
- Bidder submitted Generation profile
- Bidder elected Curtailability
- Alternatively, Bidders can submit Network Upgrade Costs from completed FS in ISO Process
- Updated transmission availability at cluster(s) since the development of the TRCR to account for
  - Generation Projects that have dropped out of the ISO Interconnection Queue
  - Transmission Projects approved

Other selection considerations and commercial arrangements (see next slide) → RFP Results

[1] Consists of Projects in the IOU's Generation Interconnection Queue, which predates the ISO Interconnection Queue; and Projects in the ISO Interconnection Queue that have paid for the completion of the associated SIS and FS.

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Renewable Resource Clusters

- Clusters are for bid evaluation purposes only.
- Clusters do not have to be Points of Interconnection.